

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of :
 Chiu, et al. :
 Serial No. 07/525,943 :
 Filed: May 17, 1990 :
 For: BULKING AGENTS AND PROCESSES FOR :
 PREPARING THEM FROM FOOD GUMS :



Group Art Unit: 132

Examiner: Joseph Golian

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT PURSUANT TO 37 C.F.R. 1.99

Commissioner of Patents and Trademarks
 Washington, D. C. 20231

SIR:

U.S. Pat. No. 4,971,814, issued November 20, 1990 to Tomita, et al. ("Tomita") discloses the preparation of dietary fiber from Konnyaku powder. This powder comprises a glucomannan-containing polysaccharide. The use of this dietary fiber in foods is suggested for its beneficial effects on health. The fiber reduces cholesterol adsorbability, without obstructing the absorption of nutrient minerals and without causing diarrhea. The Konnyaku powder is hydrolyzed to provide a dietary fiber having an average molecular weight of 2,000 to 15,000. Tomita discloses the use of this dietary fiber in foods at 3.6 percent in bread, 7.1 percent in cookies, 5.5 percent in candy and 5 percent in fruit juice or milk. Tomita does not suggest that the dietary fiber can be used to replace sugar or that it is a bulking agent for use in foods.

European Patent Application Publication No. 0,404,227, published December 27, 1990, by Vianen, et al. discloses a process for making low-calorie polysaccharide derivatives for use as a low-calorie bulking agents. In this process, saccharides (e.g., glucose), polyols (e.g., sorbitol) and food-grade polycarboxylic acids (e.g., citric acid) are reacted to form a low-calorie product. Vianen, et al. discloses that the product of this reaction is primarily polydextrose.

Japanese Patent Application No. 2-248401, published October 4, 1990 by Godo Shusei Co., Ltd., discloses a low molecular weight guar gum which can be used as a nutritional supplement to regulate bowels and to reduce serum cholesterol levels. This nutritional supplement is also suggested for reducing the incidence or effect of diabetes, atherosclerosis and colon cancer. The viscosity of a 40 percent solution of the low molecular weight guar gum is 100 to 1,000 cps. The molecular weight is 4,000 to 50,000. The low molecular weight guar gum is produced by enzyme reaction using a mannanase. The Japanese patent application does not disclose the use of this material as a replacement for sugar in foods or as a bulking agent in foods. Its use as a nutritional supplement is suggested at 5 percent in apple juice, tea or powdered fruit juice, at 5.6 percent in bread

and at 7.1 percent or 7.6 percent in noodles.

International Patent Cooperation Treaty Application No. WO 90/02807 (PCT/EP89/01027) published March 22, 1990 by Schnepf, et al. ("Schnepf") discloses warp sizing agents that are water soluble and can be removed from textiles after weaving by washing the textiles with water. Schnepf also discloses a process for the enzymatic decomposition of heteropolysaccharides to provide warp sizing agents from tamarind seed gum, guar gum and carob seed gum. In this process about 30 to 50 percent water and 2 to 3 percent enzyme is used on a heteropolysaccharide weight basis. The viscosity of a 5 percent solution is 15 to 1,000 mPas, at 80°C on a RVT Brookfield viscometer at 20 rpm with a No. 1 spindle. Schnepf does not disclose the use of decomposed heteropolysaccharides in foods.

International Patent Cooperation Treaty Application No. WO 89/02900, published April 6, 1989 by Keramaris, et al. ("Keramaris") discloses polysaccharides that are derived from the endosperm of mesquite beans. Keramaris also disclosed a partially depolymerized derivative of these polysaccharides. The polysaccharides are galactomannans.

The disclosure of the above references does not constitute an admission that they are relevant or material to the claims or are "prior art" to the subject application. The citation of them is not to be construed as a representation that no better art exists or that a search has been made, they are cited merely as constituting collectively the closest art of which the Applicants are aware.

Respectfully submitted,

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May 30, 1991

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Form PTO-1449 (REV. 7/80)		U.S. Department of Commerce Patent and Trademark Office		Atty. Docket No. 1358			Serial No. 07/525,943	
LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary) <div style="border: 1px solid black; border-radius: 50%; width: 100px; height: 100px; margin: 10px auto; display: flex; align-items: center; justify-content: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: 8px;">PATENT & TRADEMARK OFFICE</div> <div style="text-align: center;">APR 06 2007</div> </div>				Applicant Chiu, et al.				
				Filing Date May 17, 1990				
				Group 132				
U.S. PATENT DOCUMENTS								
*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate	
	AA	4,971,814	11/90	Tomita, et al.	426	52		
	AB							
	AC							
	AD							
	AE							
	AF							
	AG							
	AH							
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FOREIGN PATENT DOCUMENTS								
		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	AL	WO 89/02900	4/89	PCT				X
	AM	0 404 227	12/90	European				
	AN	2-248401	10/90	Japan				
	AO	WO 90/02807	3/90	PCT				
	AP							
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)								
	AR							
	AS							
EXAMINER					DATE CONSIDERED			
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								